



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/992,824

11/14/2001

Young-Soo Ahn

PC-1205B

5886

23717

7590

10/06/2003

LAW OFFICES OF BRIAN S STEINBERGER
101 BREVARD AVENUE
COCOA, FL 32922

EXAMINER

NGUYEN, JIMMY H

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 10/06/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,824

Applicant(s)

AHN ET AL.

Examiner

Jimmy H. Nguyen

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is made in response to applicant's papers filed on 11/14/2001. Claims 1-6 are currently pending in the application. An action follows below:

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature, "said separate controller for said touch screen including ... display system" (see claim 2, last 4 lines), must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because figure 11 is not consistent with figure 14 or 15 since figure 11 shows a touch screen (100) **separate** from the control board of the touch screen driving portion (105), and figure 14 or 15 shows a touch screen (100) **integrated** in the control board of the touch screen driving portion (105).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 1 is objected to under 37 CFR 1.75(a) because although this claim meets the requirement 112/2d, i.e., the metes and bounds are determinable, however, the feature, "wiring on said touch screen configured such that it is drawn out from said board for said touch screen

Art Unit: 2673

driving portion”, lines 9-10, should be changed to -- wiring on said touch screen configured such that said wiring is drawn out from said touch screen”, so as to make the above feature to be consistent with the feature in the last two lines of claim 1 and with the disclosure, specifically fig. 11.

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claim, to take into consideration these editorial situations and make changes as necessary.

5. Claim 2 is objected to because of the following informalities: line 10, “said separate controller for said touch screen including” should be changed to -- said separate controller, for said touch screen, including--, so as to make the claimed invention consistent with the specification, specifically page 13, lines 3-6. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants’ admitted Prior Art, hereinafter AAPA, and further in view of Nobuhiko (JP 09-319498, see the attached copy of English translation for the rejection).

As per claim 2, AAPA discloses a flat panel display (FPD) (see fig. 8) with a touch screen input device (10) added thereto, in which the touch screen (10) is mounted on a LCD (11) (fig. 9), and driving circuit boards (38, 44) are connected to the touch screen (10), the FPD

Art Unit: 2673

comprising a display driving portion (44) constructed on a PCB (fig. 9) and having a controller (55) (fig. 10a); and a touch screen driving portion (45) constructed on a separate PCB (38) (fig. 8) and having a controller (a controller including elements 51, 57, 58, and 61, see fig. 10b), which includes a clock generator (57), and A/D (58) and an interface portion (61). Accordingly, the difference between the claimed invention defined in claim 2 and the AAPA reference is that the AAPA reference does not disclose expressly the display driving portion and the touch screen driving portion constructed on an identical PCB.

However, Nobuhiko discloses a related flat panel display (see fig. 1) with a touch screen (a digitizing tablet 11) mounted on a LCD (13), comprising a display driving portion (a portion including a LCD control circuit 16, X-driver 14A and Y-driver 14B, fig. 2, page 5, paragraph 0043) and a touch screen driving portion (a tablet control circuit 15, fig. 1) constructed on a PCB (14) on which the display driving portion is constructed (figs. 2 and 3). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide the touch screen driving portion of AAPA on a PCB, on which the display driving portion of AAPA is constructed, in view of the teaching in the Nobuhiko reference, because this would reduce the size of the flat panel display by reducing the total amount area required for a tablet, and improve the coordinate detection accuracy of the touch screen by suppressing noises by shortening the length of a connection cable, as taught by Nobuhiko (see page 1, Abstract).

Regarding to claims 3 and 4, Nobuhiko further teaches the touch screen driving portion existing on a gate PCB (14B) (fig. 2, page 6, paragraph 0057) or a data PCB (14A) (page 6, paragraph 0058).

Regarding to claim 5, Nobuhiko further teaches the board of the touch screen driving portion coupled directly to the board of the display driving portion via connector (22), (fig. 2, page 5, paragraph 0045).

Regarding to claim 6, as discussed in the rejection to independent claim 2 above, AAPA teaches the touch screen driving portion 's the controller including an A/D (58) (fig. 10b).

Allowable Subject Matter

8. Claim 1 would be allowable if rewritten or amended to overcome the objection under 37 CFR 1.75(a), set forth in this Office action.

9. The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to a flat panel display with an input device added thereto, in which a touch screen is mounted on a display. Independent claim 1 at least identifies the uniquely distinct feature, "wiring on said touch screen configured such that said wiring is drawn out from said touch screen and comes into contact with said board for said display driving portion to be electrically connected to said board for said touch screen driving portion", lines 9-12. The closest arts, as discussed above, AAPA discloses the FPD comprising a display driving portion (44) constructed on a PCB (fig. 9); a touch screen driving portion (45) constructed on a separate PCB (38) (fig. 8), an interface medium and display wirings, for electrically connected the display driving portion to the system (fig. 10a), another interface medium and touch screen driving wirings, for electrically connected the touch screen driving portion to the system (figs. 8 and 10b), and wirings from the touch screen (10) coming into contact with the board of the touch screen driving portion (38) (fig. 8), and Nobuhiko also teaches wirings (interconnection cable

Art Unit: 2673

23) (fig. 2, page 6, paragraph 0046), either singularly or in combination, fail to anticipate or render the above underlined limitations obvious, in the manner as recited in claim 1.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422.

The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

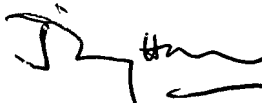
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN
September 28, 2003


Jimmy H. Nguyen
Examiner
Art Unit: 2673